1 
$$a: X = S, Y = O, Z = O, n = 0$$

$$b : X = O, Y = CH_2, Z = O, n = 1$$

$$c : X = O, Y = O, Z = CH_2, n = 1$$

$$d: X = S, Y = CH_2, Z = NH, n = 1$$

Fig. 1A

<u>د</u>يم

2 
$$a: n = 1, X = S$$

$$b : n = 0, X = S$$

$$c: n = 1, X = NH$$

$$d : n = 1, X = 0$$

Fig. 1B

3. 
$$n = 1$$
,  $a : R = hexyl$ ,  $b : R = benzyl$ 

4. 
$$n = 0$$
,  $a : R = hexyl$ ,  $b : R = benzyl$ 

Fig. 1C

$$N$$
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 

ΗÓ

ΉÓ

<sup>-4</sup>O<sub>9</sub>P<sub>3</sub>O

6. 
$$X = S$$

**5 a** :  $Ar = p-NO_2-C_6H_4$ 

**b** : Ar =  $p-NH_2-C_6H_4$ 

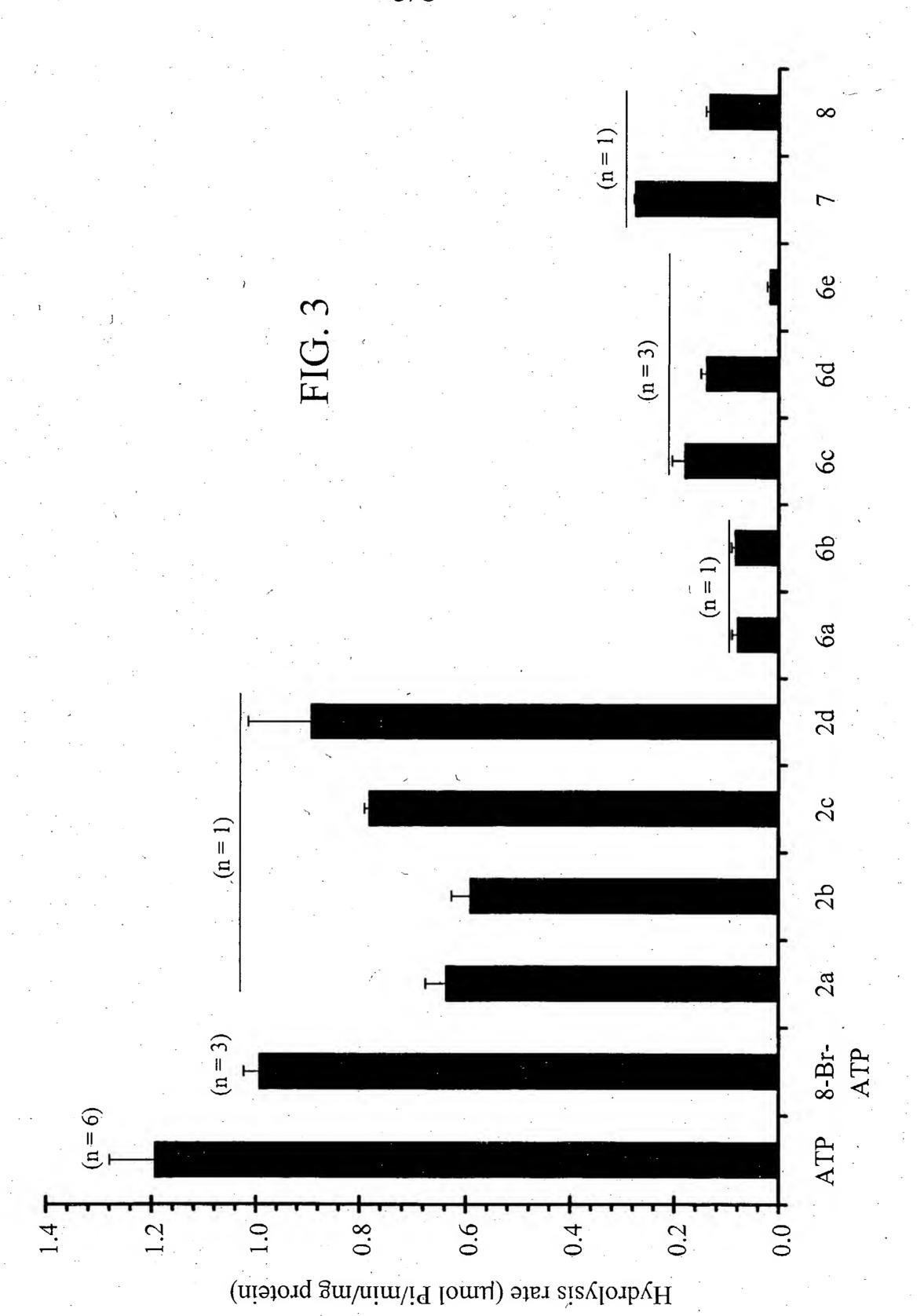
Fig. 1D

Fig. 1E

€3

Fig. 2

£.,



Substrates	Km (µM)	Vmax (µmol/min/mg protein)	Inhibitors	Ki (µM)
ATP	18 ± 1	$1.65 \pm 0.10$	8-cyclohepthylS-ATP 6a	31 ± 2.5
ADP	33 ± 1	$1.30 \pm 0.08$	8-CH2tBuS-ATP 6b	45 ± 2.5
2-BuS-ATP 2a	36 ± 6	$0.83 \pm 0.05$	8-hexylS-ATP 6d	16 ± 2.0
2-BuS-ADP 2b	63 ± 14	$0.94 \pm 0.10$	8-BuS-ATP 6e	10 ± 2.0
2-BuNH-ATP 2c	32 ± 8	$0.99 \pm 0.10$		
2-BuO-ATP2d 2d	28 ± 8	$0.82 \pm 0.09$		
8-bromo-ATP	22 ± 5	$0.63 \pm 0.04$		
8-ethylS-ATP 6c	12 ± 5	$0.30 \pm 0.03$		
8-BuNH-ATP 7	20 ± 7	$0.28 \pm 0.03$		
8-BuO-ATP 8	26 ± 5	$0.20 \pm 0.01$		

\*

FIG. 4

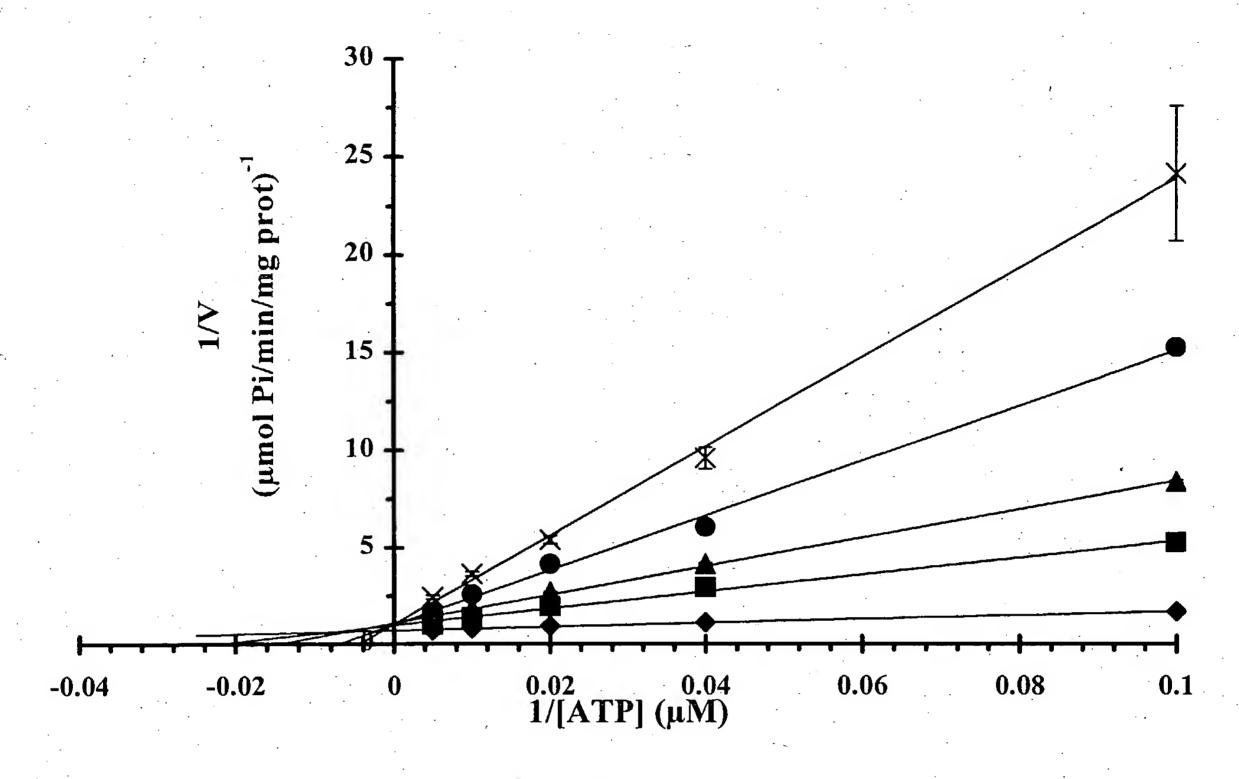


FIG. 5A

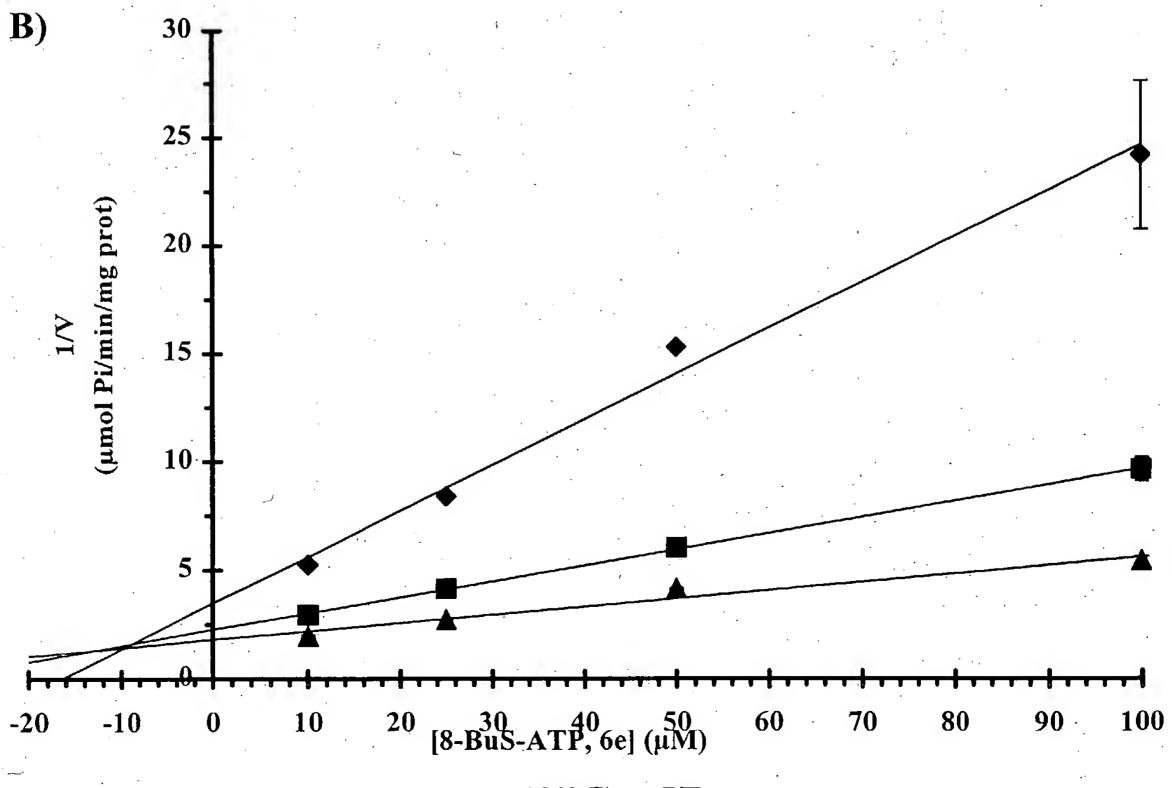


FIG. 5B

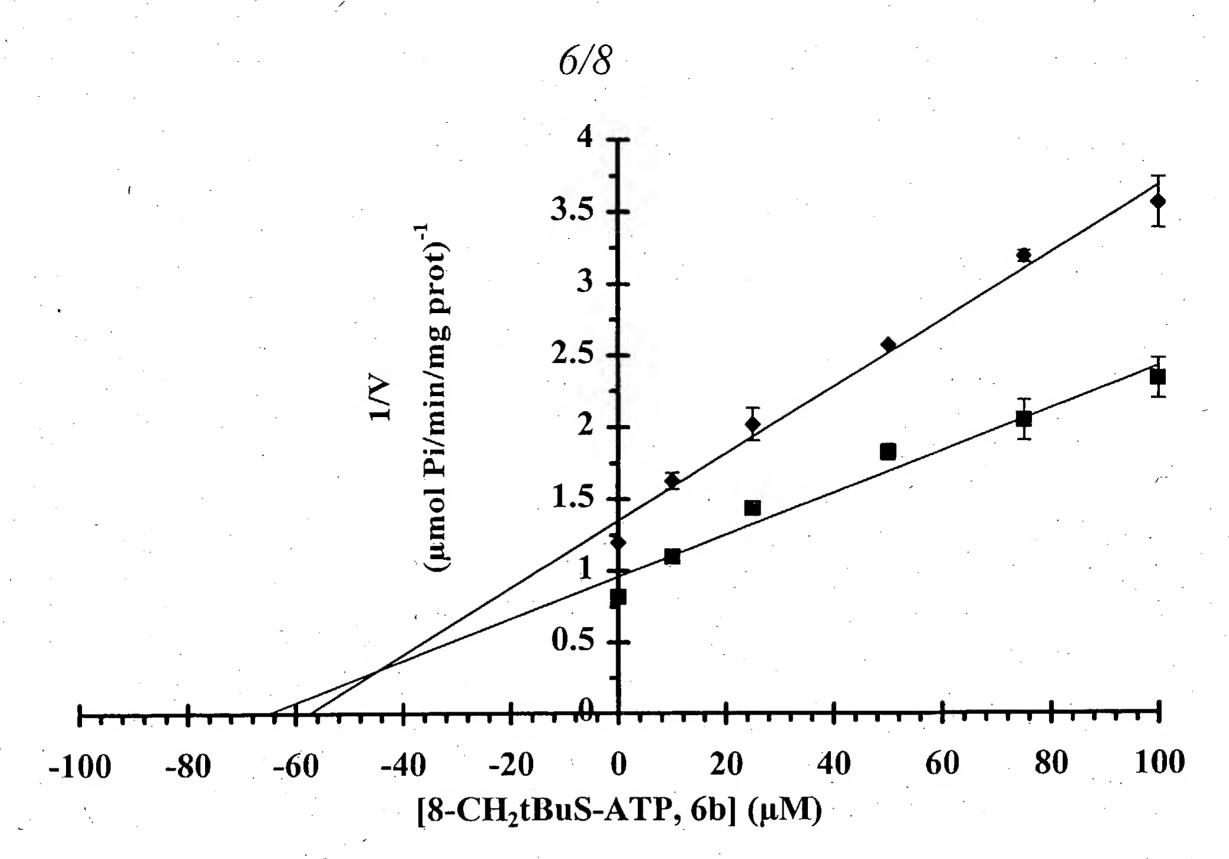
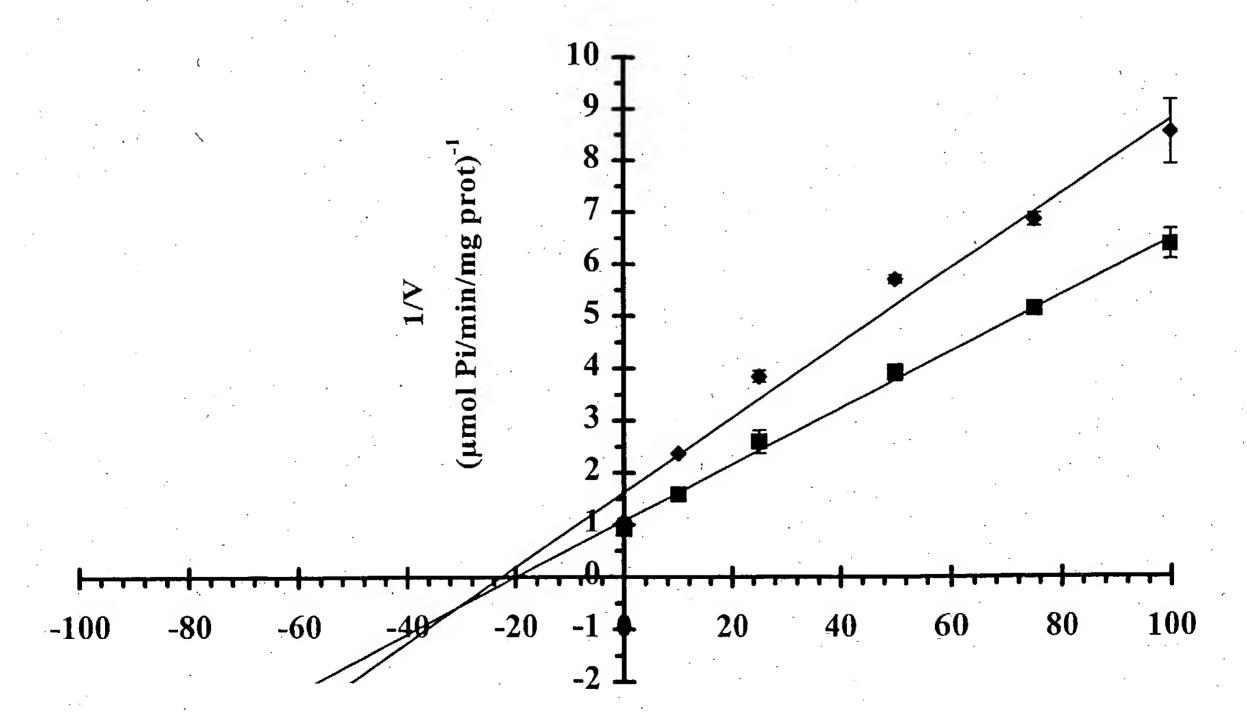


FIG. 6A



[8-cyclohepthylS-ATP, 6a] (µM)

FIG. 6B



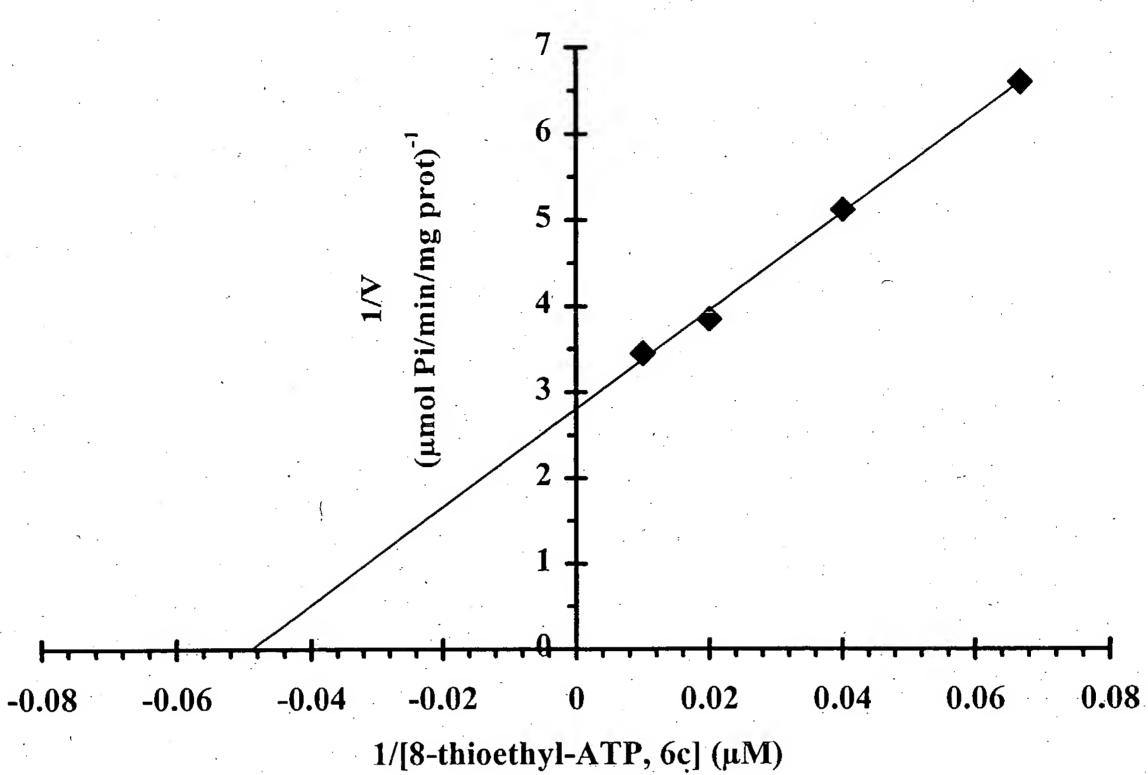
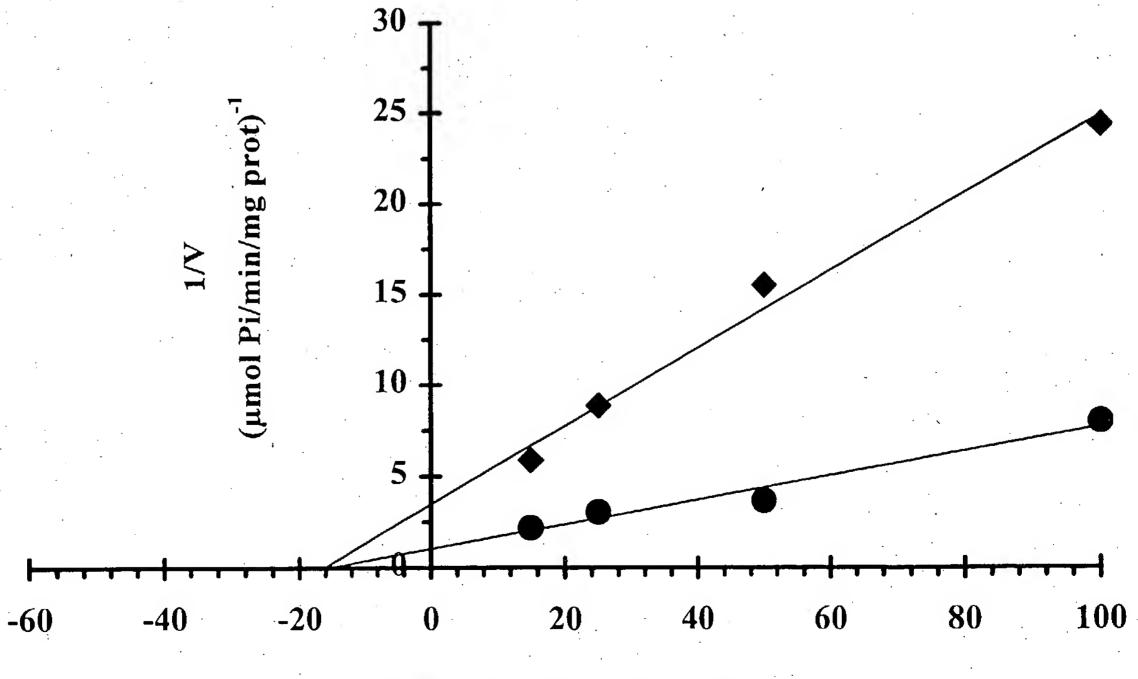


FIG. 7A



[8-thiohexyl-ATP, 6d] (µM)

FIG. 7B

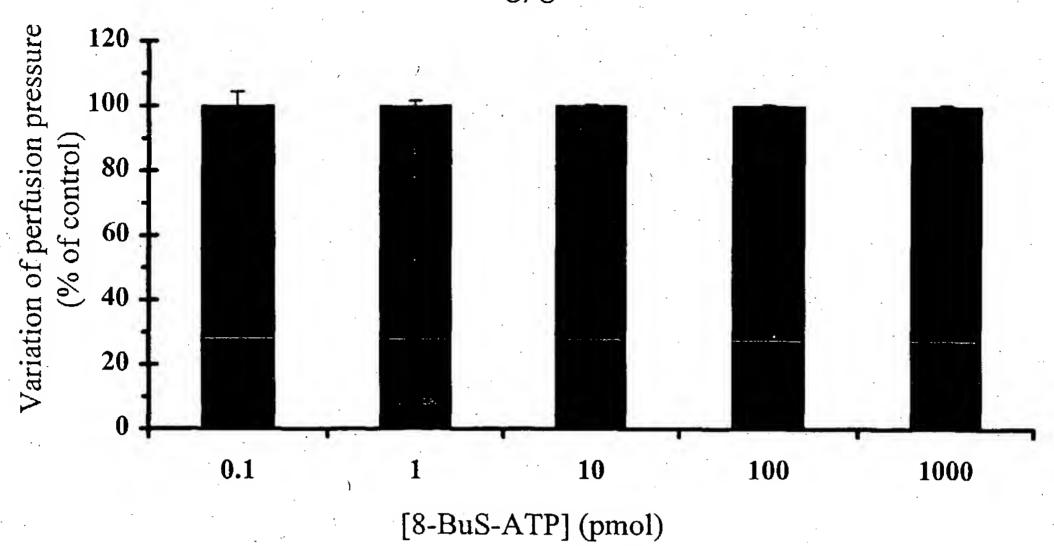


FIG. 8A

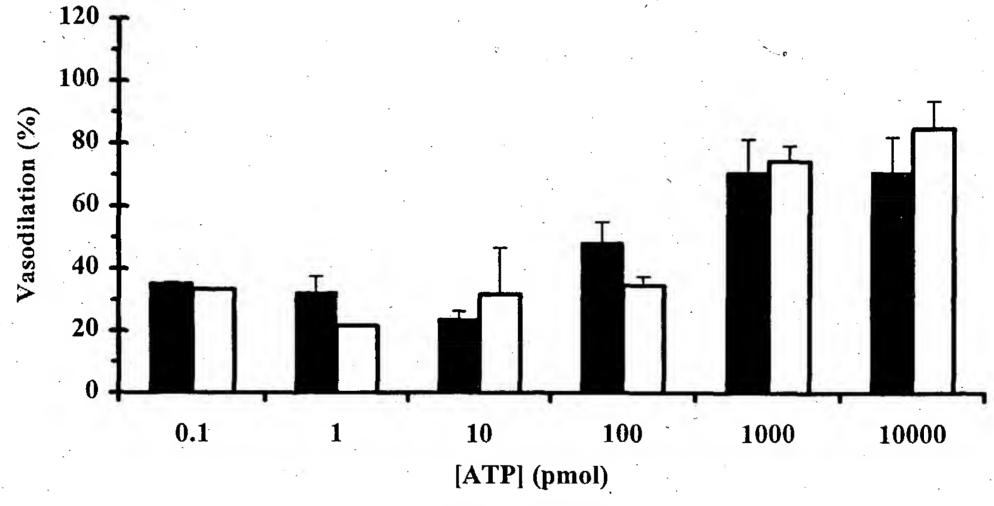


FIG. 8B

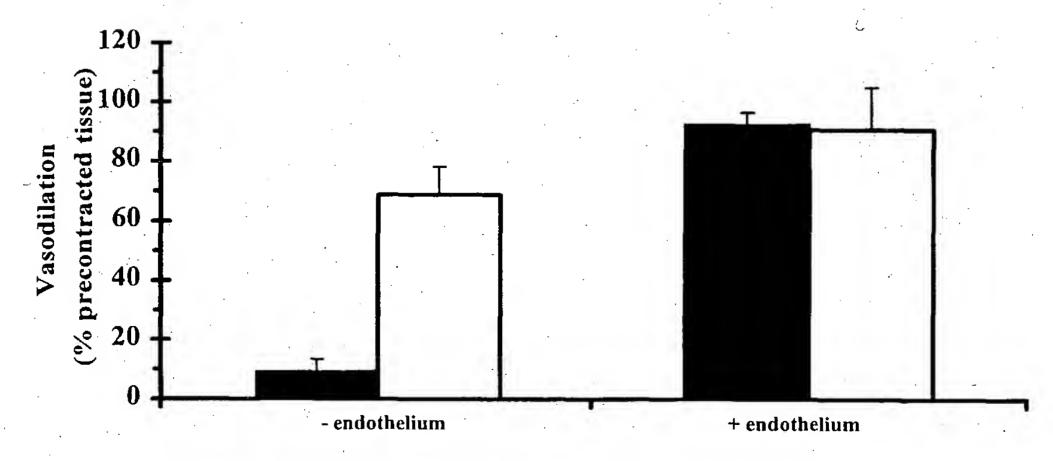


FIG. 8C